REMARKS

Claims 1, 2, 4-6, and 8-16 are pending in the application. Claims 1, 6, 10, and 14 have been amended. The amendments to the claims are supported throughout the specification, and these amendments do not include any new matter or raise any new issues. Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

Amendments to the Claims

Claims 1, 6, 10, and 14 have been amended. Support for the amendments is believed to be found at at least page 6, lines 20-24 of the instant Specification.

Claims Rejected Under 35 U.S.C. § 103

Claims 1, 2, 4-6, and 8-16 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wei (U.S. Pat. No. 5243629) in view of Applicant's Admitted Prior Art (AAPA; Specification May 2, 2001, pgs. 1-3, Fig. 1). Applicant respectfully traverses this rejection. Amended claim 1 recites, in part:

> "a band splitting means for distributing the TX data preprocessed by the TC sub-layer means to a predetermined number of band TX processing means; ...wherein the band splitting means distributes the TX data to each of the predetermined number of band TX processing means based on predetermined and different data transmission rates, and based on the location of a unit of data within the TX data."

A. First, Wei fails to disclose or suggest claim 1 as the data of Wei is not the TX data as claimed in claim 1. The TX data of claim 1 is undifferentiated for the claimed apparatus. See for example page 12, lines 15-20. But, in Wei the term data is redefined to "... a digital signal comprising a plurality of 'classes of information' in which at least one class of information is more important." (Wei, col. 3, lines 22-25). Wei appears to define the data as being data which is divided into classes and where at least one class of data is more important than another. The teachings of Wei appear to be directed to selecting frequencies for different classes of data based on their importance, whereas the claimed apparatus is directed towards increasing the

transmission rate by using a number of band TX processing means. For at least this reason, withdrawal of the rejection is respectfully requested.

B. Second, Wei does not disclose or suggest claim 1 as Wei data appears to not be distributed "based on predetermined and different data transmission rates, and based on the location of a unit of data within the TX data." Wei fails to render obvious claim 1 because the data in Wei is classed data and the band TX processing means selected for the data in Wei is based on the CLASS of the data. (See, for example, Wei, col. 3, lines 22-25). That is, Wei appears to describe class data and splitting up frequencies for each class.

Consider, for example, a byte of TX data in Wei vs. a byte of TX data in the present claimed subject matter arriving to the claimed apparatus, in Wei, the byte of TX data will already have an assigned frequency for transmission which is NOT based on the "different transmission rates" nor on the "location of a unit of data within the TX data," but rather on the class of the TX data. That is, Wei assigns a frequency for TX data based on the class of the TX data and not on the transmission rate or location of the data. In contrast, in the present claimed subject matter, a byte of TX data is distributed to "band TX processing means" (claim 1) based on the byte's location within the TX data, and based on the different data transmission rates. Therefore, Wei does not teach or suggest the limitation of claim 1, "based on predetermined and different data transmission rates, and based on the location of a unit of data within the TX data." AAPA does not remedy this deficiency of Wei. For at least this reason, withdrawal of the rejection is respectfully requested.

C. Third, Wei does not disclose or suggest claim 1 because Wei uses the same transmission rates and not "different data transmission rates" as claimed in claim 1. The Patent & Trademark Office asserted, "Once the number of bits/symbol and the number of symbols/unit time is determined, the metric of bits/unit time or 'transmission rate' is known." Instant Official Action. However, contrary to the Examiner's assertions, in Wei the transmission rates are the same, but the symbol rates are different as extra bits are added for error correction for more important classes of data. I.e., Wei appears to use different symbol rates, while retaining the same transmission rates. Therefore, the data in Wei cannot be split based on "different data transmission rates" (claim 1) because Wei fails to disclose or suggest different data transmission

rates. Wei appears to describe using different constellation sizes, as well as different symbol rates, to accommodate extra error correction bits; however, the data transmission rate remains the same. AAPA does not remedy this deficiency of Wei. For at least this reason, withdrawal of the rejection is respectfully requested.

D. Claims 2, 4-6, and 8-16 are believed allowable for at least the same reasons presented above with respect to claim 1 as they either contain similar limitations as claim 1 or depend on a claim containing limitations similar to claim 1.

Conclusion

Accordingly, the combination of AAPA and Wei fails to teach or suggest the limitations of claims 1-2, 4-6, and 8-16 and the rejection should be withdrawn. Therefore, all objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and a Notice to that effect is solicited.

Should any questions remain unresolved, the Examiner is encouraged to contact the undersigned attorney for Applicants at the telephone number indicated below in order to expeditiously resolve any remaining issues.

Respectfully submitted,

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